

FLU EXPRESS



Flu Express is a weekly report produced by the Respiratory Disease Office of the Centre for Health Protection. It monitors and summarizes the latest local and global influenza activities.

Local Situation of Influenza Activity (as of Apr 20, 2016)

Reporting period: Apr 10 – 16, 2016 (Week 16)

- Surveillance data have shown that the local influenza activity has continued to decrease from the peak level but still remained elevated above the levels recorded during inter-season periods. The public should continue to be vigilant.
- The Centre for Health Protection (CHP) has collaborated with the Hospital Authority (HA) and private hospitals to reactivate the enhanced surveillance for severe seasonal influenza cases (i.e. influenza-associated admissions to intensive care unit (ICU) or deaths) among patients aged 18 or above since Jan 29, 2016. As of Apr 20, 348 adult severe cases (including 160 deaths) were recorded. Separately, 21 cases of severe paediatric influenza-associated complication/death among patients aged below 18 years (including two deaths) were recorded during the period.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Given that seasonal influenza vaccines are safe and effective, all persons aged 6 months or above except those with known contraindications are recommended to receive influenza vaccine for personal protection.
- Eligible children (aged between six months and less than 6 years, or 6 years old or above attending a kindergarten or child care centre in Hong Kong), elderly (aged 65 years or above) and eligible persons with intellectual disabilities can be subsidised for seasonal influenza vaccination from enrolled private doctors participating in the Government's vaccination subsidy schemes starting from Oct 15, 2015. Elderly aged 65 or above living in the community can also receive free vaccination from General Out-patient Clinics under the HA and designated Elderly Health Centres of the Department of Health since Nov 10, 2015. Details are available from the vaccination schemes website (http://www.chp.gov.hk/en/view_content/17980.html).

Influenza-like-illness surveillance among sentinel general outpatient clinics and sentinel private doctors, 2012-16

In week 16, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPCs) was 6.6 ILI cases per 1,000 consultations, which was lower than 8.4 recorded in the previous week (Figure 1, left). The average consultation rate for ILI among sentinel private doctors was 58.5 ILI cases per 1,000 consultations, which was similar to 57.9 recorded in the previous week (Figure 1, right).

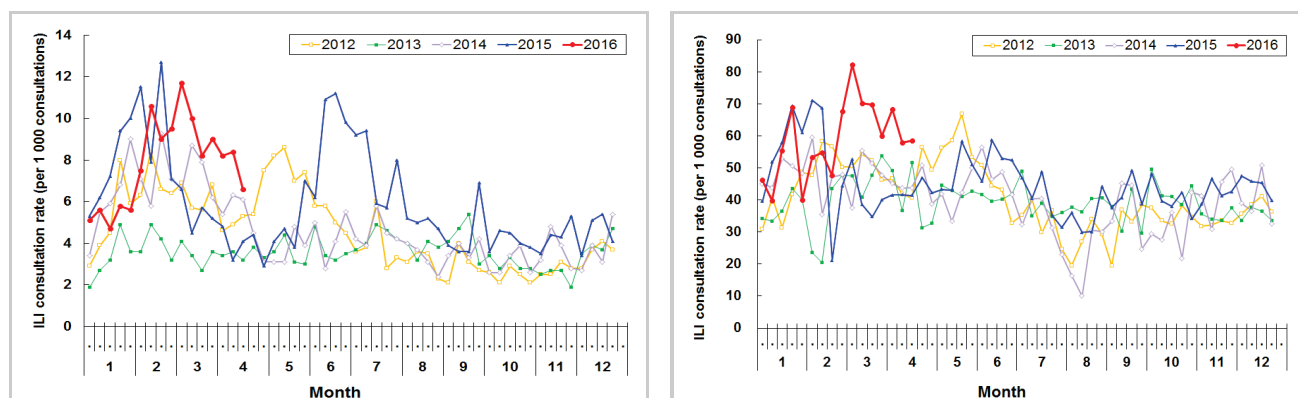


Figure 1 ILI consultation rate at sentinel GOPCs (left) and private doctors (right), 2012-16

Laboratory surveillance, 2012-16

Among the respiratory specimens received in week 16, 678 (16.66%) were tested positive for seasonal influenza viruses, including 293 (7.20%) influenza A(H1), 18 (0.44%) influenza A(H3), 346 (8.50%) influenza B and 21 (0.52%) influenza C. The percentage of respiratory specimens tested positive for seasonal influenza viruses last week was 16.66%, which was lower than 17.48% recorded in the previous week (Figure 2). Among the influenza viruses detected in the last week, the proportions of B, A(H1), C and A(H3) were 51.0%, 43.2%, 3.1% and 2.7% respectively. The proportion of influenza B among positive influenza detections has been increasing steadily in February and has overtaken A(H1) to become the most commonly detected subtype since the second week of March.

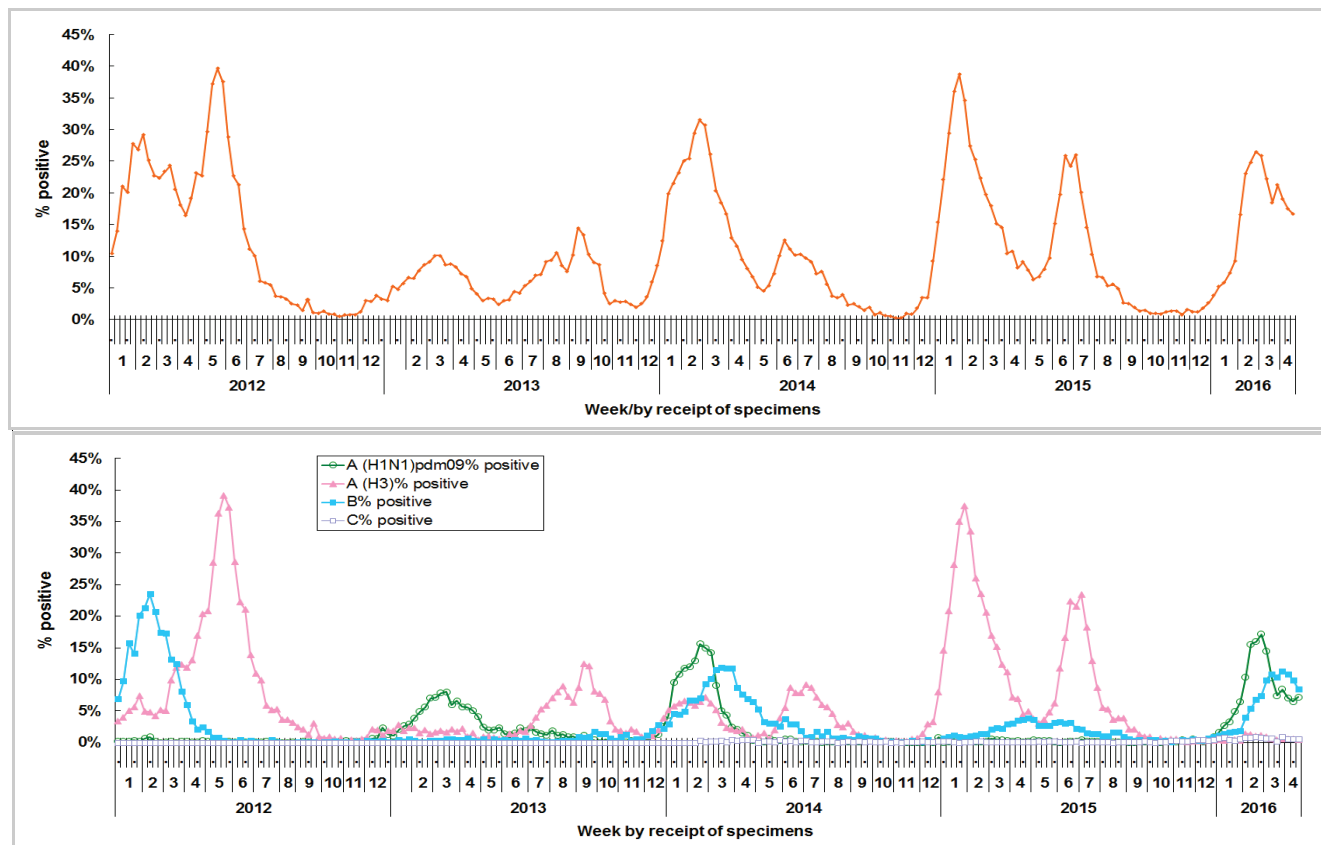


Figure 2 Percentage of respiratory specimens tested positive for influenza viruses, 2012-16 (upper: overall positive percentage, lower: positive percentage by subtypes)

Influenza-like illness outbreak surveillance, 2012-16

In week 16, 21 ILI outbreaks occurring in schools/institutions (affecting 102 persons) were recorded, as compared to 7 outbreaks (affecting 38 persons) recorded in the previous week (Figure 3). In the first 4 days of week 17 (Apr 17 to 20, 2016), 13 institutional ILI outbreaks (affecting 75 persons) were recorded.

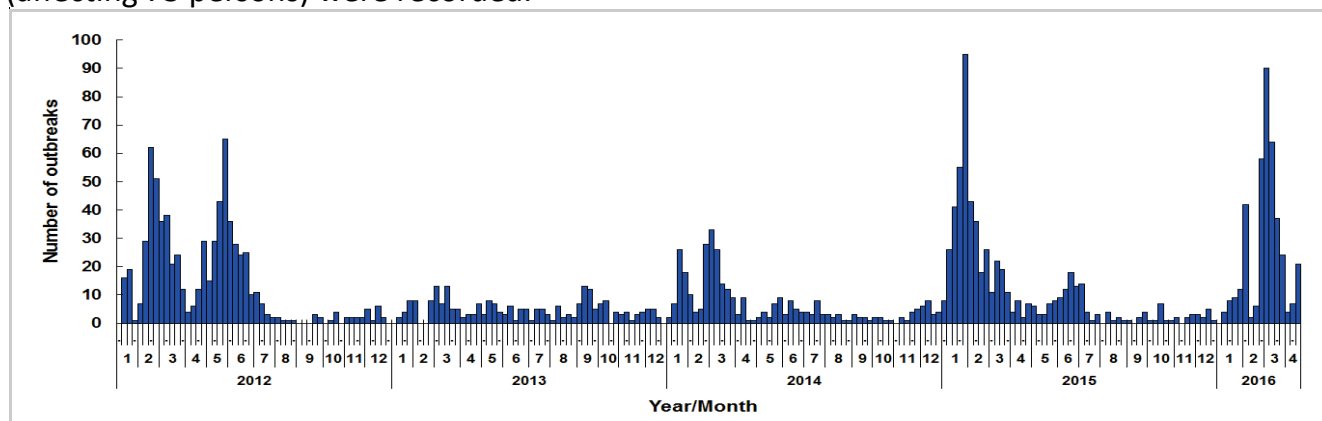


Figure 3 ILI outbreaks in schools/institutions, 2012-16

Rate of influenza-like illness syndrome group in accident and emergency departments, 2012-16[#]

In week 16, the rate of the influenza-like illness syndrome group in the accident and emergency departments (AED) was 209.0 (per 1,000 coded cases), which was lower than the rate of 221.4 in the previous week (Figure 4).

#Note: The influenza-like illness syndrome group includes codes such as influenza, upper respiratory tract infection, fever, cough, throat pain, and pneumonia.

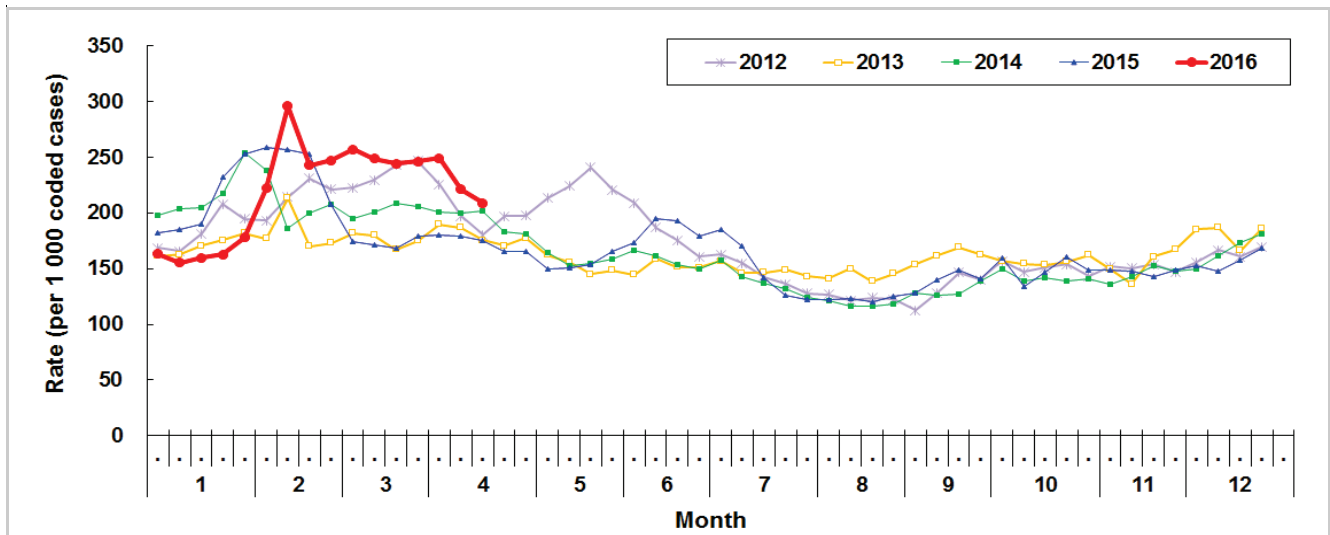


Figure 4 Rate of ILI syndrome group in AED, 2012-16

Influenza associated hospital admission rates and deaths in public hospitals based on discharge coding, 2012-16

In week 16, the admission rates in public hospitals with principal diagnosis of influenza for persons aged 0-4 years, 5-9 years, 10-64 years and 65 years or above were 2.60, 0.90, 0.09 and 0.38 cases (per 10,000 people in the age group) respectively, as compared to 2.99, 0.69, 0.15 and 0.63 cases in the previous week (Figure 5). Weekly number of deaths with any diagnosis of influenza is also shown in Figure 5.

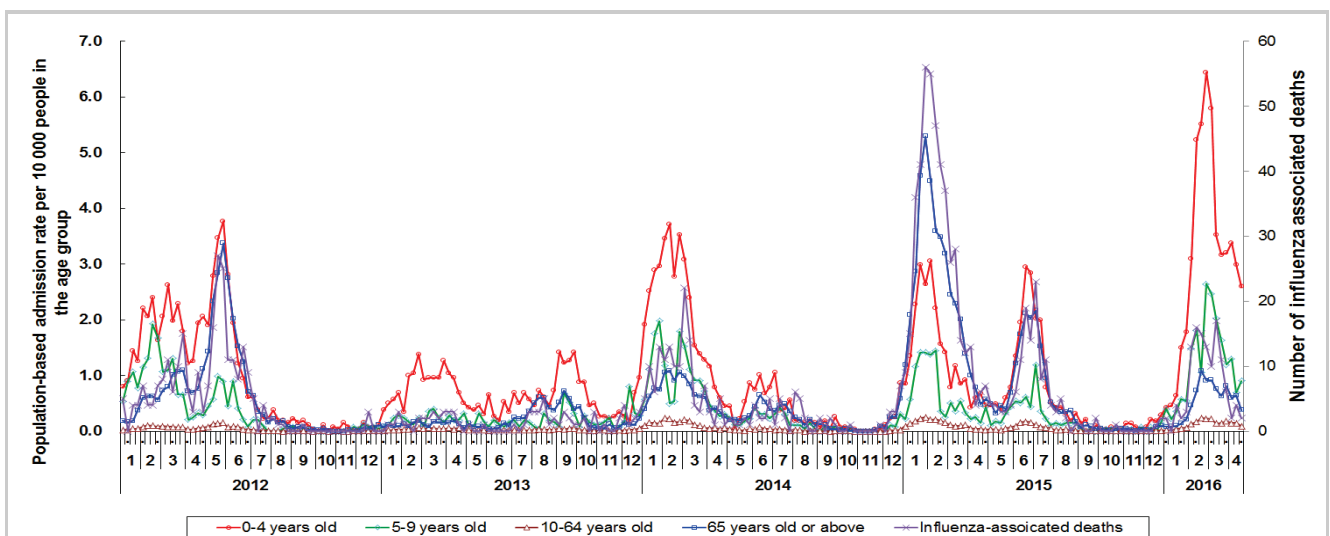


Figure 5 Influenza associated hospital admission rates and deaths, 2012-16

Fever surveillance at sentinel child care centres/ kindergartens, 2012-16

In week 16, 0.89% of children in the sentinel child care centres/ kindergartens (CCC/ KG) had fever (38°C or above) as compared to 0.73% in the previous week (Figure 6).

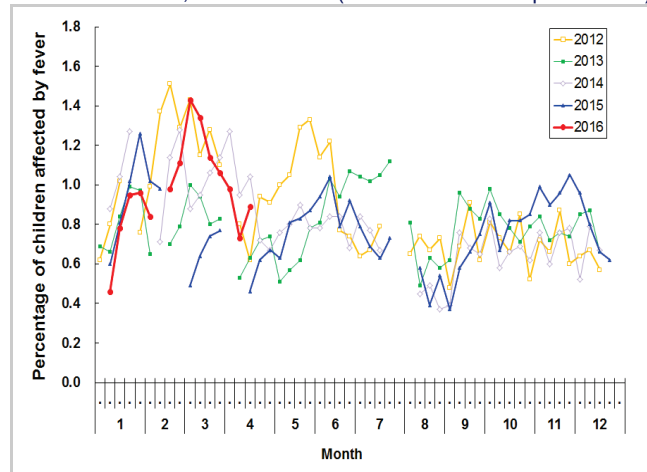


Figure 6 Percentage of children with fever at sentinel CCC/ KG, 2012-16

Fever surveillance at sentinel residential care homes for the elderly, 2012-16

In week 16, 0.15% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above) as compared to 0.22% in the previous week (Figure 7).

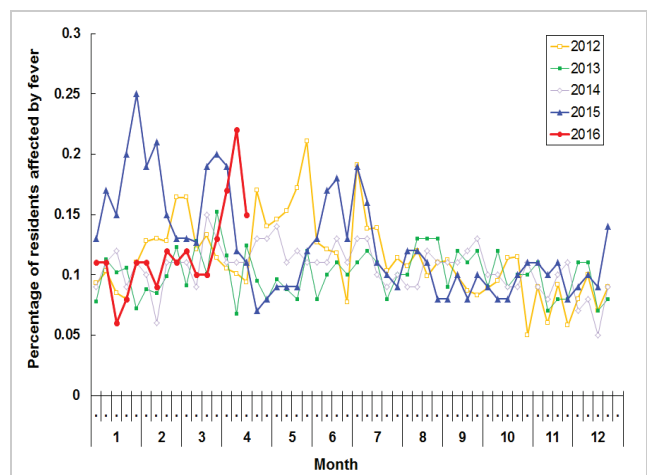


Figure 7 Percentage of residents with fever at sentinel RCHE, 2012-16

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2012-16

In week 16, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 2.41 ILI cases per 1,000 consultations as compared to 2.53 in the previous week (Figure 8).

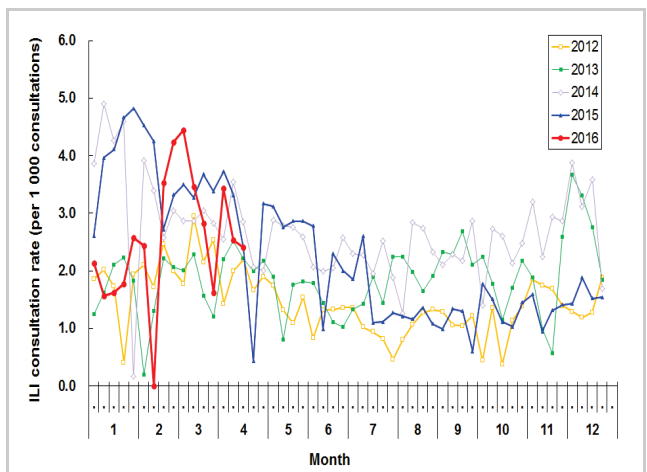


Figure 8 ILI consultation rate at sentinel CMP, 2012-16

Surveillance of severe influenza cases

(Note: The data reported are provisional figures and subject to further revision)

- Since activation of the enhanced surveillance for severe influenza infection on Jan 29, 2016, a total of 348 adult severe cases (including 160 deaths) and 21 paediatric severe cases (including two deaths) were recorded (as of Apr 20)(Figure 9). Among them, 231 patients had infection with influenza A(H1N1)pdm09, 104 patients with influenza B, 19 patients with influenza A(H3N2), two patients with influenza C, 12 patients with influenza A pending subtype and one patient with both influenza A(H3N2) and B. In the last winter season in early 2015, 647 adult cases (including 501 deaths) and 18 paediatric cases (including 1 death) were filed.

Enhanced surveillance for severe seasonal influenza (Aged 18 years or above)

- In week 16, 25 cases of influenza associated ICU admission/death were recorded, in which 12 of them were fatal. In the first 4 days of week 17 (Apr 17 to 20), 10 cases of influenza associated ICU admission/death were recorded, in which 5 of them were fatal.

Surveillance of severe paediatric influenza-associated complication/death (Aged below 18 years)

- There were two cases of severe paediatric influenza-associated complication reported in week 16 and no cases in the first 4 days of week 17 (Apr 17 to 20). The details are shown in the table below. In addition, the new death in this week involved a previous case reported in week 7 affecting a 17-month old girl. She contracted influenza A(H1N1) and developed encephalitis.

Reporting week	Age	Sex	Complication	Influenza subtype
16	6 years	Male	Encephalitis	Influenza A (H1N1)pdm09
16	18 months	Female	Pneumonia and Shock	Influenza A (H1N1)pdm09

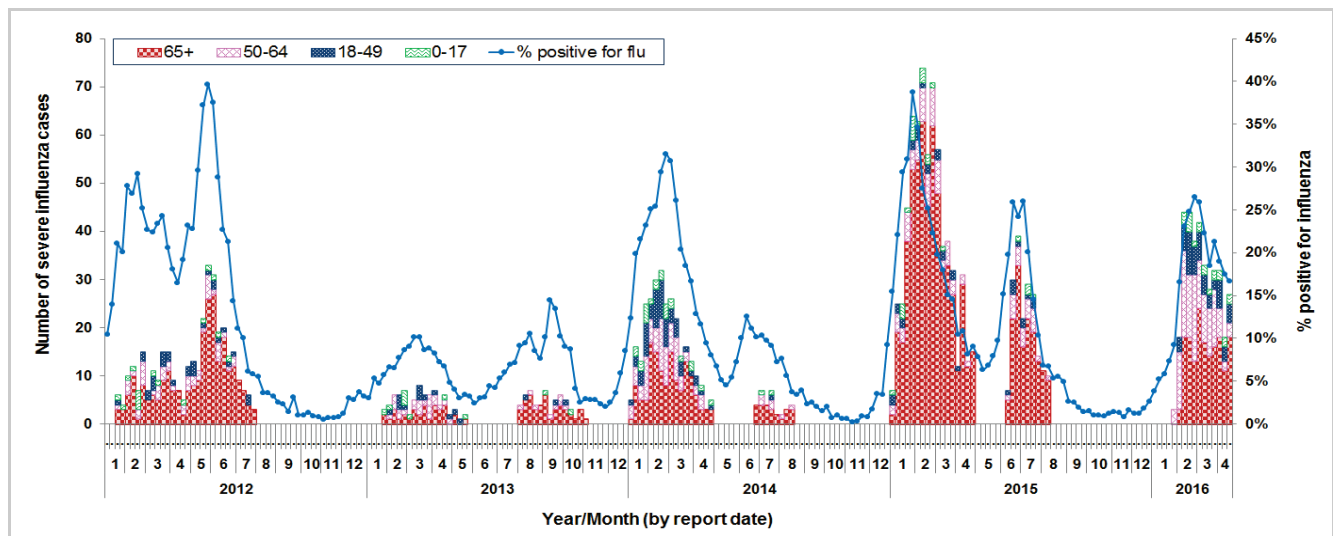


Figure 9 Weekly number of severe influenza cases recorded during influenza seasons, 2012-2016

Remark: The surveillance system for severe influenza cases aged 18 years or above was only activated intermittently during influenza seasons.

Surveillance of oseltamivir resistant influenza A(H1N1)pdm09 virus infection

- In week 16, there was one new case of oseltamivir (Tamiflu) resistant influenza A(H1N1)pdm09 virus infection involving a 60-year-old female. The patient was a severe case requiring ICU admission. She developed pneumonia and was treated with zanamivir. The virus strain detected was sensitive to zanamivir (Relenza). There were no new reports in the first 4 days of week 17 (Apr 17 to 20, 2016). There are totally 48 reports of oseltamivir resistant influenza A(H1N1)pdm09 virus detected in Hong Kong since 2009.

Global Situation of Influenza Activity

- In the United States (week ending Apr 9, 2016), influenza activity decreased but remained elevated. The proportion of outpatient visits for ILI was 2.1%, which was at the national baseline of 2.1%. The percentage of respiratory specimens positive for influenza in clinical laboratories was 14.0%.
- In Canada (week ending Apr 9, 2016), lower but sustained influenza activity is being reported throughout the country. Both influenza B and influenza A detections decreased.
- In the United Kingdom (week ending Apr 10, 2016), influenza activity had decreased but remained above baseline level and continued to circulate. Overall weekly ILI consultation rate has decreased but remained above the baseline threshold in England. The ILI rates in Scotland and Wales decreased while that in Northern Ireland increased. The percentage of positive influenza detection was 17.7%, which was above the threshold for 2015/16 season of 7.4%.
- In Europe (week ending Apr 10, 2016), influenza activity continued to decrease. Most countries reported decreasing trends with associated lower numbers of specimens being collected and fewer testing positive for influenza than in the previous week. Influenza B constituted 72% of influenza virus detections in sentinel samples and 36%-39% among hospitalized severe cases.
- In Mainland China (week ending Apr 10, 2016), the influenza activities in both southern and northern China remained at seasonal epidemic levels but showed decreasing trends. Influenza B is the most common circulating virus subtype.
- In Taiwan (week ending Apr 16, 2016), the influenza activity had declined from the peak level. The numbers of ILI consultations in AED and severe influenza cases continued to decrease. Influenza B constituted about 79% of influenza detection. During the past four weeks, the antigenic match between the seasonal influenza vaccine and the circulating influenza virus strains were 99% for H1N1, 100% for H3N2 viruses, but 35% for influenza B virus.
- In Japan (week ending Apr 10, 2016), the influenza season has started since early January. The average number of reported ILI cases per sentinel site decreased to 7.02 in the week ending Apr 10 from 11.20 in the previous week, but still higher than the baseline level of 1.00.

Sources:

Information have been extracted from the following sources when updates are available: [United States Centers for Disease Control and Prevention](#), [Public Health Agency of Canada](#), [Public Health England](#), [Joint European Centre for Disease Control and Prevention-World Health Organization/Flu News Europe](#), [Chinese National influenza Center](#), [Taiwan Centers for Disease Control](#) and [Japan Ministry of Health](#).